Memo

Quality Control

						*
			Dr. Committee of the Co	QA:	Date:	•
NCR:	Yes /	No	WORK ORDER NON-CONFORMANCE / UPDATE	***************************************		1

										QA Closed:	Date:	
Work Orde	ari ·	\$ A			DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N	lo.			· ·	Rework Scrap Use-as-is Work Order Update] 	N nermo	okid-tube lachining oforming large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descr	iption of work order update	Initia	al	Ad	ction	Sign &		
Cause	Date	Step	Qty	· Ł	or Non-conformance	Chief I	Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling												
Operator												."
Material												
Setup							1					
Other												
Process		1				1					1	
Supplier												
Training												
Unapproved											<u> </u>	
						AULT C	ATEG	ORY				
Landir F	ng Gear			_	General				_	1		1_ ,_ ,
-	Bending				Bend	Gra			<u> </u>	Ovalized	 	Pressure/Forced
1	Centre N	ot Concei	ntric to	^{0/S} -	BOM/Route	\vdash	rdwar			Over/Under	 	Temperature/Cure Weld
}	Cracks	·C		-	Broken/Damaged	\mathbf{H}	•	n Incomplete	/Unalgor	Part Incorre	—	Weld Stock Pulled
1	Crushed/ Cuffs	Crimpea		-	Burrs Contamination			ons Incomplete, nance	Onclear	Part Moved	issing [Wrong Stock Pulled
	Heat Trea	a t		-	Countersink	\vdash	slabele		<u> </u>	Positioned V	M/rong	
ŀ	Inspectio		Tube	-	Cut Too Short	\vdash	sread	eu	-	Power Loss/		Other
ŀ	Ripples in		· abc	-	Drill Holes	Off			L	7. 2 5.33/		1
	Torque V		xtrusio	n '	Drawing			alibration				
	Turning S				Finish	\vdash		equence				
	Wave/Tw	-		/ ·	Folio	\vdash		Dimensions				

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord September-23-				*107	7370*						Page 2
Item ID: Revision ID: Item Name:	D3910-3 X-Tube Lug			Accept	*N900	040°	100)*	Setup Sta		VS1* VS2*
Start Date: Required Date Reference:	10/03/13 e: 10/07/13	Start Qty: 40.00 Req'd Qty: 40.00	*40* *40*		Cust Item l Customer:	D:					
Approvals:	Process Pla	an:	Date:			ate:		F	Run Sta Sto	" "	JR1* JR2*
Sequence ID/ Work Center 140 *140* HandFinish Hand Finishing 150 *150* QC Quality Control		Operation Description Chemical Conversion Co Memo OC3 Inspect Part Finish Memo		Set Up/ Run Hours 0.00 0.00	Tool ID		Plan Code		Reject Qty	Reject Number	Insp. er Stamp
160 *160* Powdercoat Powder Coating	^ ~	White Gloss(Ref:4.3.5.1) Memo START TIM OVEN TEM FINISH TIM	ie: 4 7/5 iperature: 2	0.00 0.00 20		4	/ Σχ	¥-+;	M-f	13/1	 - 1 -

M(26125

											DQA:	Date:	·
NCR:	Yes	/ No				WORK ORDER NON-C	CON	FORM	MANCE / UPI	DATE	0.161		
											QA Closed:	Date:	<u> </u>
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N	•					Rework Scrap Use-as-is		í	Skid-tube Machining noforming	Crosstube Small Fab Finishing	-	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR I	No. ِ		·	· · · · · · · · · · · · · · · · · · ·		Work Order Update]		Large Fab	Composite]	Supplier	
Root			<u> </u>		Descri	ption of work order update	Ir	itial	Act	tion	Sign &		
Cause		Date	Step	Qty	C	or Non-conformance	Chi	ef Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling		•											
Operator	·	* .	,										,
Material							1						
Setup													
Other													
Process						•							
Supplier			Ì										
Training													
Unapproved				ļ	<u> </u>								
						F	AULT	CATE	GORY				
Landi		1				General					7	·	1
		Bending				Bend	Щ	Grain			Ovalized		Pressure/Forced
		Centre No	ot Conce	ntric to	O/S	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure

Inspection Incomplete

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Instructions Incomplete/Unclear

Weld

Other

Wrong Stock Pulled

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Broken/Damaged

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Burrs

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cracks

Cuffs

Heat Treat

Crushed/Crimped

Inspection Strip in Tube

Torque Waves in Extrusion

N	Jork	Orde	r ID	10	737	70
* 1	V WIR	VI UCI		IU	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	v

107370

Page 3

September-23-1	3 11:49:23 A	M									
Item ID: Revision ID:	D3910-3			Accept	*N900	040	100)* s	etup Star	1.71	S1*
Item Name:	X-Tube Lug								Stop	^p *N	S2*
Start Date:	10/03/13	Start Qty: 40.00	*40*		Cust Item 1	D:					
Required Date	: 10/07/13	Req'd Qty: 40.00	*40*		Customer:						
Reference:				-							
Approvals:	Process Pla	ın:	Date:	Tooling:	D	ate:		R	tun Star	1/7	R1*
	QC:		Date:	SPC (Y/N):	D:	ate:			Stop	*N	R2*
Sequence ID/ Work Center I	ID.	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170		QC3- Inspect Part Finish		0.00				7 /s	/		
170		1						_40_	0	13-10-	15.
QC Quality Control		Memo		0.00					7		
180		Identify as per dwg & Stoo	ck Location: <u>ST 464</u>	0.00					DAS '		
180 Packaging Packaging		Memo		0.00	:			40×	28 9-89	13-K	D-/15_
190		QC21- Final Inspection - V	Work Order Release	0.00				1/	1-1	,	
190 QC Quality Control		` Memo		0.00			,	7	X-1 <i>FL</i>	13-10	-/5_

	DQA:	Date:	•
	, -		
 MANDE ORDER MONE CONFORMANICE / LIREATE			

NCR: Y	es /	No				WORK ORDER NON-	coi	NFOR	MANCE / UP	DATE	•	······	
								_			QA Closed:	Date	:
Work Orde	r.					DISPOSITION				AGAINST [DEPARTMENT,	/PROCESS	
Part N	lo					Rework Scrap Use-as-is Work Order Update		Thern	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update		Initial	Ac	tion	Sign &		
Cause	C	ate	Step	Qty	(or Non-conformance	Ch	nief Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
				,. , ,			AUL	LT CATE	GORY				
Landi	Cer Cra Cru Cuf Hea Ins	nding ntre No cks shed/G ffs at Trea pection	n Strip in Bend	Tube	o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instruct Mainte Mislabe Misread Offset	on Incomplete ions Incomplete/ nance led	'Unclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	Tor	que W	aves in E	xtrusion	۱ [Drawing		Out of 0	Calibration				

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Finish

Folio

Picklist Print

· September-23-13 11:49:25 AM

Work Order ID:

107370

Parent Item:

D3910-3

Parent Item Name:

X-Tube Lug

Start Date: 10/03/13

Required Date: 10/07/13

Page 1

Start Qty: 40.00

Required Qty: 40.00

Comments:

IPP REV:A NEW ISSUE 09-11-25 JLM VERIFIED BY:DD

IPP REV:B AS PER REV B 10-

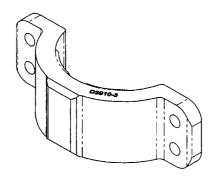
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3910-3P Crosstube Lug		Purchased	No				Each	0.0000	<u> </u>	40	CZ^{13}	5/10/0	04
D2423 Lug Extrusion		Manufactured	No				f	538.8660		5.47368	14 CY/3	09/2	6
				Location		Loc Qty	<u>Lo</u>	c Code					·
				MAT006		538.866							
				105 879	3422 953	320 218.866				5.48			

				DQA:	Date:	•
NCR:	Yes	/ No	WORK ORDER NON-CONFORMANCE / UPDATE			

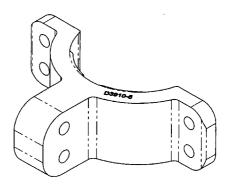
											QA Closed:	Dat	e: , ´
Work Orde	er:					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
Part N	-					Rework Scrap		⊢		Crosstube Small Fab	Water Jet Prod. Eng. Coor.		Engineering Quality
NCR N	No					Use-as-is Work Order Update	}		noforming Large Fab	Finishing Composite	Rec/Sto	re/Packaging Supplier	Other
Root					Descri	ption of work order update	Ir	nitial	A	ction	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Chi	ef Eng	Des	cription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling							1						
Operator													
Material													
Setup													
Other													
Process							1						, i
Supplier													
Training													
Unapproved													
						F	AULT	CATE	GORY				
Landi	ng G	ear				General						_	
		Bending				Bend		Grain			Ovalized		Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Ш	Cracks				Broken/Damaged		Inspecti	on incomplete		Part Incorre	ct _	Weld
		Crushed/0	Crimped			Burrs		Instruct	ions Incomplete	/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved		
		Heat Trea	t			Countersink		Mislabe	led		Positioned V	Vrong _	
		Inspection	n Strip in	Tube		Cut Too Short		Misread	1		Power Loss/	Surge	Other
		Ripples in	Bend			Drill Holes		Offset					
		Torque W	aves in E	xtrusio	n [Drawing		Out of 0	Calibration				
		Turning S	equence			Finish		Out of S	Sequence				
		Wave/Tw	ist in Tuk	ne .		Folio		Outside	Dimensions				

03010-1

D3910-1 X-TUBE LUG



D3910-3 X-TUBE LUG



D3910-5 X-TUBE LUG

UNCO

Stil...

107370 MCJ 13-09-25

13,08,14 AJS C ADD -5. 13.08.08 ## DD -9.

DD -9. 10.03.16 A NEW ISSUE 10.03.04 REV. BY DATE DESCRIPTION

DESIGN AJS DART AEROSPACE LTD DRAWN HAWKESBURY, ONTARIO, CANADA CHECKED REV. D D3910 MFG. APPR. 91 SHEET 1 OF 4 TITLE APPROVED SCALE X-TUBE LUG (350)

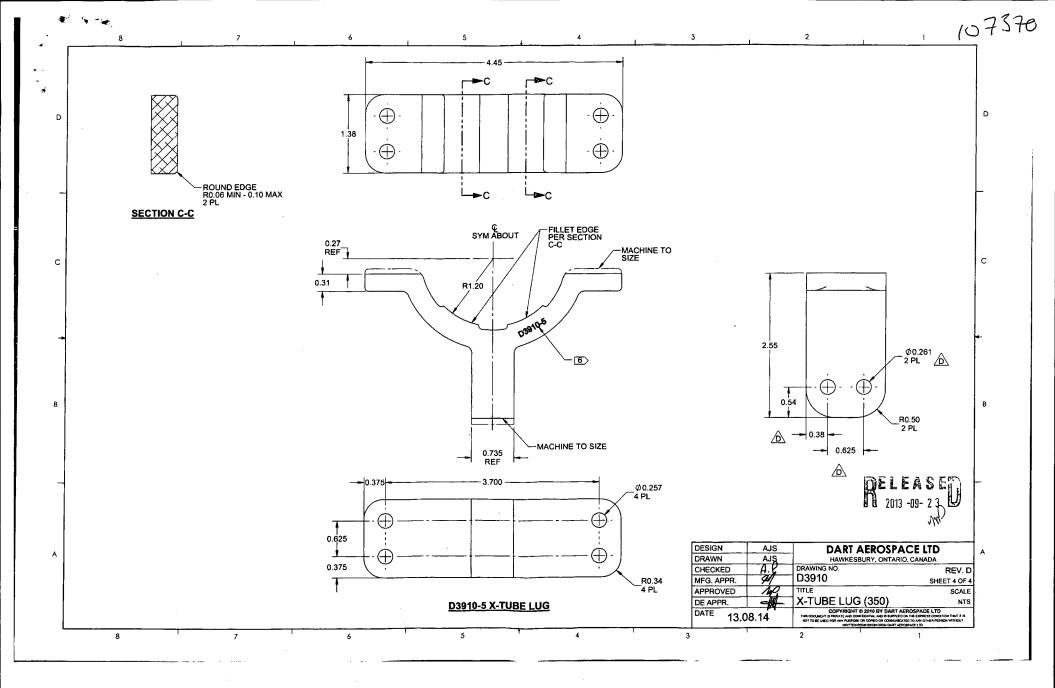
COPYRIGHT © 2016 BY DART AEROSPACE LTD

THE DODARTH O PRIVATE AND COMP EDUTIN, AND IS LEWISCO ON THE ESPRESS COSTON
HOT TOOK USE OF HEAV PRIVATION OF COMPONED COMMUNICATION OF OTHER PRIVA DE APPR. NTS

DATE 13.08.14

NOTES:
1) MATERIAL: MAKE FROM D2423 EXTRUSION
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: ENGRAVE PART NUMBER TO A DEPTH OF 0.010 ± 0.005 IN THIS LOCATION WITH A TOOL TIP RADIUS
OF 0.015 ± 0.005
7\WEIGHT -1\cdot 0.32 lbs 7) WEIGHT -1: 0.32 lbs -3: 0.25 lbs -5: 0.36 lbs

D





20 Terry Fox Drive Vankleek Hill, Ontario K0B 1R0, Canada Tel: (613) 678-3957 Fax: (613) 678-3956

Delivery Slip No.: Date:

19510

Sep 30, 2013

Page:

Sold to:		Ship to:	
Dart Aeros Att. Michea 1270 Aberd Hawkesbur	l Gregoire	Da Att 12	art Aerospace Ltd. t. Micheal Gregoire 170 Aberdeen Street awkesbury, Ontario K6A 1K7
Order No.:	21491	Sold By:	Dewar, Eric
Shipped By:	your truck	Ship Date:	Sep 30, 2013

Description ,	- Unit	Ordered quantity	Shipped quantity	Backorder guantity
3910-3 Crosstube Lug as per drawing D3910 Rev D	Each	40	40	
The delivered goods must be inspected upon receipt to confirm compliance.				
Should there be discrepancies please notify METEC within 30 days of delivery. The goods are otherwise deemed accepted. Received by	Thank	you for you	ur order!	· · · · · · · · · · · · · · · · · · ·



20 Terry Fox Drive, Vankleek Hill, Ontario K0B 1R0 Tel. (613) 678-3957 & (613) 678-2782 Fax (613) 678-3956 <u>metec@metec.ca</u>

CERTIFICATE OF CONFORMITY

SOLD TO:

SHIPPED TO:

Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, Ont. K6A 1K7

same

QUANTITY

PART NUMBER

PART NAME

P.O. NUMBER

40

D3910-3P

CrosstubeLug

PO 21491

MATERIAL: supplied by DART B87953

We hereby certify that the above parts were made in conformance with applicable drawings.

METEC Metal Technology Inc.

Jan Norris

Vankleek Hill, September 30, 2013



Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, ON K6A 1K7

Tel: 613 632 9577 Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO21491

Purchase Order Date 9/26/2013 PO Print Date 9/26/2013

Page Number 1 of 1

Order From:

VC-MET003

Ship To: DART AEROSPACE LTD

METEC METAL TECHNOLOGY INC. 20 TERRY FOX DRIVE PO BOX 781

VANKLEEK HILL, ON KOB 1R0

CA

1270 ABERDEEN

HAWKESBURY, ON K6A 1K7

CANADA

Contact Name

Vendor Phone

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

613 678 3957

Dart Truck

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms Currency Net 10 CAD

FOB

10/4/2013

Destination-Collect

P13-10

FC/3/04/p/

Line Nbr	Vendor Part Number Line Comments	Description/ Mfg ID	Req Date/ CD Taxable Promise Date	CD Req Qty/ Unit of Measure	
	Delivery Comments				
1	D3910-3P	Crosstube Lug	10/4/2013	40.00	
	· · · · · · · · · · · · · · · · · · ·		Yes	Each	

AS PER DWG D3910 REV. D B107370

Line Total:

PO Unit Price

\$31.55

\$1,262

Extend

\$1,262

PO Total:

\$1,262

Note: Pricing listed above is as per contract agreement between Dart Aerospace and the respective manufacturer.

No substitution or deviation without consent.

Certificate of Conformity or Material Certification required YES

PST# 6122-5207

Change Nbr:

Change Date:

9/26/2013